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March Precipitation Over the Great Lakes

As a percentage of the long-term March average:

Great Lakes Basin	175%
Lake Erie (including Lake St. Clair)	141%
Lake Superior	144%
Lakes Michigan-Huron	214% *
Lake Ontario	127%

* Record High

LEVEL news
Great Lakes - St. Lawrence River Water Levels

Volume 6, Number 4 April 6, 1998

Heavy Rain Over Great Lakes Basin

Lake Levels Climb

Heavy rainfall over much of the Great Lakes basin, especially during the last week of March, pushed up water levels on the Great Lakes and increased the risk of flood and erosion damages to shore properties.

While dry weather extended over all of the basin during the first week of the month, heavy precipitation occurred over the basins of Lakes Ontario, Erie and Michigan-Huron during the second and third weeks, and very heavy rainfall fell over the basins of Lakes Michigan-Huron and Superior during the last week of March. During the first three months of 1998, Lake Superior's basin has received about an average amount of precipitation, but all of the other lake basins have received about thirty percent above their average.

At the end of March, Lake Ontario was about 47 centimetres above average, Lake Erie was 67 centimetres above average and Lake St. Clair was 59 centimetres above average. Lake Huron was about 44 centimetres above average and Lake Superior was 5 centimetres above average.

If wet conditions should persist over the next several months, Lake Ontario's level could exceed last year's peak by up to 25 centimetres, and levels on Lakes Erie, St. Clair and Huron could match those of last year. If average amounts of rainfall occur, Lake Ontario's peak level will be close to that of last year, and the other lakes will remain below the levels of one year ago.

The risk of damage to shore properties along Lakes Ontario, Erie and St. Clair is very high, especially during periods of strong onshore winds. There is a moderate risk of damage along the shore of Lake Huron, including Georgian Bay, and low risk along Lake Superior.

Discover the Great Lakes

Environment Canada has prepared a CD-ROM , titled Discover the Great Lakes, of facts and figures on ecosystems, human activities, toxic chemicals, endangered species, sustainability, climate change, and other environmental topics relating to the Great Lakes-St. Lawrence basin.

Sorry, this CD is no longer available.

Note: These figures are preliminary.

March Outflows From the Great Lakes

As a percentage of the long-term March average:

Lake Superior	104%
Lake Erie	131%
Lake Huron	112%
Lake Ontario	141% *

* Record High

Note: These figures are preliminary.

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Summary information for "LEVEL*news*"

Record High Outflow from Lake Ontario During March

Outflow from Lake Ontario during March set a new record high for the month, eclipsing the previous record set in March 1997. During the past month, the flow averaged 9430 cubic metres per second (cms), while the previous record was 9130 cms.

The outflow during March is often limited by concerns that high flows could cause ice jams in the river. However, due to the mild winter there was virtually no ice in the river upstream of Montreal by the beginning of this March, and there was no potential for a jam to form. This allowed the International St. Lawrence River Board of Control to permit flow in excess of 10,000 cms for much of the month. The very high outflow contributed to a less than average increase in Lake Ontario's water level during the month, despite above average rainfall and very high inflow from Lake Erie.

However, the Board found it necessary to sharply curtail outflow during the last four days of March. The combination of record mild temperatures and rainfall led to rapid snowmelt and runoff into the Chateauguay River, the Ottawa River, and other tributaries that empty into Lake St. Louis, which is a widening of the St. Lawrence River upstream of Montreal. As Lake St. Louis' level started to climb, the inflow to the lake through the St. Lawrence River was reduced through a series of reductions in Lake Ontario's outflow. Despite these outflow reductions, Lake St. Louis rose above flood stage on March 29. By March 31, Lake Ontario's outflow was further reduced to 4,700 cms.

It is likely that high inflows to Lake St. Louis from local tributaries will subside during the first few days of April and some increase in Lake Ontario's outflow will be possible. However, high flow from the Ottawa River to Lake St. Louis may continue for several days, which will limit the amount of increase possible in Lake Ontario's outflow over the short term. On April 6, the outflow was 5,500 cms.

Lake Erie Ice Boom Removed

The ice boom at the mouth of Lake Erie was removed on March 5th, which was the earliest on record. Virtually no ice formed behind the boom this winter due to the very mild conditions.

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